



SEQUENCE LISTING

<110> Glass, David
Bodine, Sue

<120> NOVEL NUCLEIC ACID AND POLYPEPTIDE MOLECULES

<130> REG 753B

<140> 10/062,043

<141> 2002-01-30

<150> 60/338,742

<151> 2001-10-22

<150> 60/311,697

<151> 2001-08-10

<150> 60/264,926

<151> 2001-01-30

<160> 48

<170> PatentIn version 3.0

<210> 1

<211> 29

<212> DNA

<213> mouse

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29

<210> 2
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<212> DNA
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24

<210> 3
<211> 17
<212> PRT
<213> rat

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Glu

<210> 4
<211> 29
<212> DNA
<213> mouse

<400> 4
gaacacagga ggagaaactg gaacatgtc

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<210> 5
<211> 24
<212> DNA
<213> mouse

<400> 5
cccgaaatgg cagtatttct gcag

24

<210> 6
<211> 39

<212> PRT

<213> Homo sapiens

<400> 6

Leu Pro Leu Cys Leu Gln Leu Asn Leu Met Gln Arg Leu Ser Asp Gly
1 5 10 15

Arg Asp Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu His Val Leu
20 25 30

Ser Glu Asp Arg Leu Leu Trp
35

<210> 7

<211> 39

<212> PRT

<213> Homo sapiens

<400> 7

Leu Pro Glu Asp Val Leu Phe His Ile Leu Lys Trp Leu Ser Val Glu
1 5 10 15

Asp Ile Leu Ala Val Arg Ala Val His Ser Gln Leu Lys Asp Leu Val
20 25 30

Asp Asn His Ala Ser Val Trp
35

<210> 8

<211> 39

<212> PRT

<213> Homo sapiens

<400> 8

Leu Pro Glu Pro Leu Leu Leu Arg Val Leu Ala Ala Leu Pro Ala Ala
1 5 10 15

Glu Leu Val Gln Ala Cys Arg Leu Val Cys Leu Arg Trp Lys Glu Leu
20 25 30

Val Asp Gly Ala Pro Leu Trp
35

<210> 9

<211> 42

<212> PRT

<213> Homo sapiens

<400> 9

Leu Pro Gly Glu Val Leu Glu Tyr Ile Leu Cys Cys Gly Leu Thr Ser
1 5 10 15

Ala Ala Asp Ile Gly Arg Val Ser Ser Thr Cys Arg Arg Leu Arg Lys
20 25 30

Leu Cys Gln Ser Ser Gly Lys Val Trp Lys
35 40

<210> 10

<211> 39

<212> PRT

<213> Homo sapiens

<400> 10

Leu Pro Leu His Met Leu Asn Asn Ile Leu Tyr Arg Phe Ser Asp Gly
1 5 10 15

Trp Asp Ile Ile Thr Leu Gly Gln Val Thr Pro Thr Leu Tyr Met Leu
20 25 30

Ser Glu Asp Arg Gln Leu Trp
35

<210> 11

<211> 37

<212> PRT

<213> Homo sapiens

<400> 11

Leu Pro Tyr Glu Leu Ala Ile Asn Ile Phe Gln Tyr Leu Asp Arg Lys
1 5 10 15

Glu Leu Gly Arg Cys Ala Gln Val Cys Thr Trp Lys Val Ile Ala Glu
20 25 30

Asp Glu Val Leu Trp
35

<210> 12

<211> 38

<212> PRT

<213> Homo sapiens

<400> 12

Leu Pro Thr Asp Pro Leu Leu Leu Ile Leu Ser Phe Leu Asp Tyr Arg
1 5 10 15

Asp Leu Ile Asn Cys Cys Tyr Val Ser Arg Arg Leu Ser Gln Leu Ser
20 25 30

Ser His Asp Pro Leu Trp
35

<210> 13

<211> 37

<212> PRT

<213> Homo sapiens

<400> 13

Leu Pro Lys Glu Leu Ala Leu Tyr Val Leu Ser Phe Leu Glu Pro Lys
1 5 10 15

Asp Leu Leu Gln Ala Ala Gln Thr Cys Arg Trp Arg Ile Leu Ala Glu
20 25 30

Asp Asn Leu Leu Trp
35

<210> 14

<211> 36

<212> PRT

<213> Homo sapiens

<400> 14

Leu Pro Ile Asp Val Gln Leu Tyr Ile Leu Ser Pro Leu Ser Pro His
1 5 10 15

Asp Leu Cys Gln Leu Gly Ser Thr Asn His Tyr Trp Asn Glu Thr Val
20 25 30

Arg Asp Pro Ile
35

<210> 15

<211> 39

<212> PRT

<213> Homo sapiens

<400> 15

Leu Pro Glu Asn Ile Leu Leu Glu Leu Phe Ile His Ile Pro Ala Arg
1 5 10 15

Gln Leu Leu Leu Arg Cys Arg Pro Val Cys Ser Leu Trp Arg Asp Leu
20 25 30

Ile Asp Leu Val Thr Leu Trp
35

<210> 16

<211> 360

<212> PRT

<213> mouse

<220>

<221> misc_feature

<222> (358)..(358)

<223> Xaa = any amino acid

<400> 16

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Lys Thr Glu Asp Gly Trp Lys Arg Cys Asp Pro Cys Ser His Glu Leu
20 25 30

Arg Ser Glu Asp Ser Gln Tyr Thr Ile Asn His Ser Ile Ile Leu Asn
35 40 45

Ser Gly Glu Glu Glu Ile Phe Asn Asn Glu Cys Glu Tyr Ala Ala Lys
50 55 60

Lys Arg Lys Lys Glu His Phe Gly Asn Asp Thr Ala Ala His Ser Phe
65 70 75 80

Tyr Arg Glu Lys Trp Ile Tyr Val His Lys Glu Ser Thr Lys Glu Arg
85 90 95

His Gly Tyr Cys Thr Leu Gly Glu Ala Phe Asn Arg Leu Asp Phe Ser
100 105 110

Ser Ala Leu Gln Asp Ile Arg Arg Phe Thr Tyr Val Val Lys Leu Leu
115 120 125

Gln Leu Ile Ala Lys Ser Gln Leu Thr Ser Leu Ser Gly Val Ala Gln
 130 135 140
 Lys Asn Tyr Phe Asn Ile Leu Asp Lys Ile Val Gln Lys Val Leu Asp
 145 150 155 160
 Asp His Gln Asn Pro Arg Leu Leu Lys Gly Leu Leu Gln Asp Leu Ser
 165 170 175
 Ser Thr Leu Gly Ile Leu Val Arg Gly Val Gly Lys Ser Val Leu Val
 180 185 190
 Gly Asn Ile Asn Ile Trp Thr Cys Arg Leu Glu Thr Val Leu Ser Trp
 195 200 205
 Gln Gln Gln Leu Gln Asn Leu Gln Val Thr Lys Gln Val Asn Thr Gly
 210 215 220
 Leu Thr Leu Ser Asp Leu Pro Leu His Met Leu Asn Asn Ile Leu Tyr
 225 230 235 240
 Arg Phe Ser Asp Gly Trp Asp Leu Val Thr Leu Gly Gln Val Thr Pro
 245 250 255
 Thr Leu Tyr Met Leu Ser Glu Asp Arg Arg Leu Trp Lys Arg Leu Cys
 260 265 270
 Gln Tyr His Phe Ala Glu Gln Gln Phe Cys Arg His Leu Ile Leu Ser
 275 280 285
 Glu Lys Gly His Leu Glu Trp Lys Leu Met Tyr Phe Thr Leu Gln Lys
 290 295 300
 Tyr Tyr Pro Thr Lys Glu Gln Tyr Gly Asp Thr Leu His Phe Cys Arg
 305 310 315 320
 His Cys Ser Ile Leu Phe Trp Lys Asp Ser Gly His Pro Cys Thr Arg
 325 330 335
 Ala Asp Pro Asp Ser Cys Phe Thr Pro Val Ser Pro Glu His Glu Ile
 340 345 350
 Xaa Leu Phe Lys Phe Xaa Trp Cys
 355 360

<210> 17

<211> 272

<212> PRT

<213> Homo sapiens

<400> 17

Leu Ile Leu Thr Ser Val Leu Leu Phe Gln Arg His Gly Tyr Cys Thr
 1 5 10 15
 Leu Gly Glu Ala Phe Asn Arg Leu Asp Phe Ser Ser Ala Ile Gln Asp
 20 25 30

Ile Arg Thr Phe Asn Tyr Val Val Lys Leu Leu Gln Leu Ile Ala Lys
 35 40 45
 Ser Gln Leu Thr Ser Leu Ser Gly Val Ala Gln Lys Asn Tyr Phe Asn
 50 55 60
 Ile Leu Asp Lys Ile Val Gln Lys Val Leu Asp Asp His His Asn Pro
 65 70 75 80
 Arg Leu Leu Lys Asp Leu Leu Gln Asp Leu Ser Ser Thr Leu Cys Ile
 85 90 95
 Leu Thr Arg Gly Val Gly Lys Ser Val Leu Val Gly Asn Ile Asn Ile
 100 105 110
 Trp Thr Cys Arg Leu Glu Thr Ile Leu Ala Trp Gln Gln Gln Leu Gln
 115 120 125
 Asp Leu Gln Met Thr Lys Gln Val Asn Asn Gly Leu Thr Leu Ser Asp
 130 135 140
 Leu Pro Leu His Met Leu Asn Asn Ile Leu Tyr Arg Phe Ser Asp Gly
 145 150 155 160
 Trp Asp Ile Leu Thr Leu Gly Gln Val Thr Pro Thr Leu Tyr Met Leu
 165 170 175
 Ser Glu Asp Arg Gln Leu Trp Lys Lys Leu Cys Gln Tyr His Phe Ala
 180 185 190
 Glu Lys Gln Phe Cys Arg His Leu Leu Leu Ser Glu Lys Gly His Leu
 195 200 205
 Glu Trp Lys Leu Met Tyr Phe Ala Leu Gln Lys His Tyr Pro Ala Lys
 210 215 220
 Glu Gln Tyr Gly Asp Thr Leu His Phe Cys Arg His Cys Ser Ile Leu
 225 230 235 240
 Phe Trp Lys Asp Ser Gly His Pro Cys Thr Ala Ala Asp Pro Asp Ser
 245 250 255
 Cys Phe Thr Pro Val Ser Pro Gln His Glu Ile Asp Leu Phe Lys Phe
 260 265 270

<210> 18

<211> 344

<212> PRT

<213> Homo sapiens

<400> 18

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Asn Trp Tyr
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 Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Ser
 20 25 30

Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Val Tyr Asn Lys
 35 40 45
 Glu Asn Leu Phe Asn Ser Leu Asn Tyr Asp Val Ala Ala Lys Lys Arg
 50 55 60
 Lys Lys Asp Met Leu Asn Ser Lys Thr Lys Thr Gln Tyr Leu His Gln
 65 70 75 80
 Glu Lys Trp Thr Tyr Val His Lys Gly Ser Thr Lys Glu Arg His Gly
 85 90 95
 Tyr Cys Thr Leu Gly Glu Ala Phe Asn Arg Leu Asp Glu Ser Thr Ala
 100 105 110
 Ile Leu Asp Ser Arg Arg Glu Asn Tyr Val Val Arg Leu Leu Glu Leu
 115 120 125
 Thr Ala Lys Ser Gln Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn
 130 135 140
 Phe Met Asn Leu Leu Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln
 145 150 155 160
 Gln Asn Ile Arg Leu Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser
 165 170 175
 Leu Cys Thr Leu Val Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn
 180 185 190
 Ile Asn Met Trp Val Tyr Arg Met Glu Thr Ile Leu His Trp Gln Gln
 195 200 205
 Gln Leu Asn Asn Ile Gln Ile Thr Arg Pro Ala Phe Lys Gly Leu Thr
 210 215 220
 Phe Thr Asp Leu Pro Leu Cys Leu Gln Leu Asn Ile Met Gln Arg Leu
 225 230 235 240
 Ser Asp Gly Arg Asp Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu
 245 250 255
 His Val Leu Ser Glu Asp Arg Leu Leu Trp Lys Lys Leu Cys Gln Tyr
 260 265 270
 His Phe Ser Glu Arg Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys
 275 280 285
 Gly Gln Leu Asp Trp Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr
 290 295 300
 Pro Arg Arg Glu Gln Tyr Gly Val Thr Leu Gln Leu Cys Lys His Cys
 305 310 315 320
 His Ile Leu Ser Trp Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn
 325 330 335
 Pro Glu Ser Cys Ser Val Ser Leu
 340

<210> 19

<211> 350

<212> PRT

<213> rat

<400> 19

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Ser Trp Val
1 5 10 15
Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Thr
20 25 30
Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Asn Leu Phe Asn
35 40 45
Ser Leu Asn Tyr Asp Val Ala Ala Lys Lys Arg Lys Lys Asp Ile Gln
50 55 60
Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln Glu Lys Trp Ile Tyr
65 70 75 80
Val His Lys Gly Ser Thr Lys Glu Arg His Gly Tyr Cys Thr Leu Gly
85 90 95
Glu Ala Phe Asn Arg Leu Asp Phe Ser Thr Ala Ile Leu Asp Ser Arg
100 105 110
Arg Glu Asn Tyr Val Val Arg Leu Leu Glu Leu Thr Ala Lys Ser Gln
115 120 125
Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn Phe Met Asn Leu Leu
130 135 140
Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln Gln Asn Ile Arg Leu
145 150 155 160
Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser Leu Cys Thr Leu Val
165 170 175
Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn Leu Asn Met Trp Val
180 185 190
Tyr Arg Met Glu Thr Thr Leu His Trp Gln Gln Gln Leu Asn Ser Ile
195 200 205
Gln Ile Ser Arg Pro Ala Phe Lys Gly Leu Thr Ile Thr Asp Leu Pro
210 215 220
Val Cys Leu Gln Leu Asn Ile Met Gln Arg Leu Ser Asp Gly Arg Asp
225 230 235 240
Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu His Val Leu Ser Glu
245 250 255
Asp Arg Leu Leu Trp Lys Arg Leu Cys Gln Tyr His Phe Ser Glu Arg
260 265 270
Gln Ile Arg Lys Arg Leu Leu Leu Ser Asp Lys Gly Gln Leu Asp Trp
275 280 285
Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr Pro Arg Arg Glu Gln

290

295

300

Tyr Gly Val Thr Leu Gln Leu Cys Lys His Cys His Ile Leu Ser Trp
 305 310 315 320

Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn Pro Glu Ser Cys Ser
 325 330 335

Val Ser Leu Ser Pro Gln Asp Glu Ile Asn Leu Phe Lys Phe
 340 345 350

<210> 20

<211> 1053

<212> DNA

<213> rat

<400> 20

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 aaccgcggtg gctcgggtgc catgtctgga ggtcgtttcc gctgcccctc gtgccgccat 240
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 aacagccacc aggtgaagga ggaactgagc cacaagtttg acgccctcta cgccatcctg 660
 gacgagaaga agagtgaact gctgcagcgg atcactcagg agcaggagga gaagctggac 720
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 ggctttgaga acatggacta ctttactctg aatttagaac acatagcaga ggccttgagg 960
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 caagaagagg gcgtgtccac agagggacac caa 1053

<210> 21

<211> 351

<212> PRT

<213> rat

<400> 21

Met Asp Tyr Lys Ser Gly Leu Ile Pro Asp Gly Asn Ala Met Glu Asn
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Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met Phe Thr Lys
20 25 30
Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg Lys Cys Ala
35 40 45
Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Asn Arg Gly Gly
50 55 60
Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Ser Cys Arg His
65 70 75 80
Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln Arg Asn Leu
85 90 95
Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys Ser Ser Arg
100 105 110
Pro Leu Gln Lys Gly Ser His Pro Met Cys Lys Glu His Glu Asp Glu
115 120 125
Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr Cys Ser Leu
130 135 140
Cys Lys Val Phe Gly Ala His Gln Ala Cys Glu Val Ala Pro Leu Gln
145 150 155 160
Ser Ile Phe Gln Gly Gln Lys Thr Glu Leu Ser Asn Cys Ile Ser Met
165 170 175
Leu Val Ala Gly Asn Asp Arg Val Gln Thr Ile Ile Ser Gln Leu Glu
180 185 190
Asp Ser Cys Arg Val Thr Lys Glu Asn Ser His Gln Val Lys Glu Glu
195 200 205
Leu Ser His Lys Phe Asp Ala Leu Tyr Ala Ile Leu Asp Glu Lys Lys
210 215 220
Ser Glu Leu Leu Gln Arg Ile Thr Gln Glu Gln Glu Glu Lys Leu Asp
225 230 235 240
Phe Ile Glu Ala Leu Ile Leu Gln Tyr Arg Glu Gln Leu Glu Lys Ser
245 250 255
Thr Lys Leu Val Glu Thr Ala Ile Gln Ser Leu Asp Glu Pro Gly Gly
260 265 270
Ala Thr Phe Leu Leu Ser Ala Lys Pro Leu Ile Lys Ser Ile Val Glu
275 280 285
Ala Ser Lys Gly Cys Gln Leu Gly Lys Thr Glu Gln Gly Phe Glu Asn

290

295

300

Met Asp Tyr Phe Thr Leu Asn Leu Glu His Ile Ala Glu Ala Leu Arg
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Ala Ile Asp Phe Gly Thr Asp Glu Glu Glu Glu Phe Thr Glu Glu Glu
325 330 335

Glu Glu Glu Asp Gln Glu Glu Gly Val Ser Thr Glu Gly His Gln
340 345 350

<210> 22

<211> 2097

<212> DNA

<213> Homo sapiens

<400> 22
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<210> 23

<211> 340

<212> PRT

<213> Homo sapiens

<400> 23

Met	Glu	Asn	Leu	Glu	Lys	Gln	Leu	Ile	Cys	Pro	Ile	Cys	Leu	Glu	Met
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			20					25					30		
Lys	Cys	Ala	Asn	Asp	Ile	Phe	Gln	Ala	Ala	Asn	Pro	Tyr	Trp	Thr	Ser
		35					40					45			
Arg	Gly	Ser	Ser	Val	Ser	Met	Ser	Gly	Gly	Arg	Phe	Arg	Cys	Pro	Thr
		50				55					60				
Cys	Arg	His	Glu	Val	Ile	Met	Asp	Arg	His	Gly	Val	Tyr	Gly	Leu	Gln
65					70					75				80	
Arg	Asn	Leu	Leu	Val	Glu	Asn	Ile	Ile	Asp	Ile	Tyr	Lys	Gln	Glu	Cys
				85					90					95	
Ser	Ser	Arg	Pro	Leu	Gln	Lys	Gly	Ser	His	Pro	Met	Cys	Lys	Glu	His
			100					105					110		
Glu	Asp	Glu	Lys	Ile	Asn	Ile	Tyr	Cys	Leu	Thr	Cys	Glu	Val	Pro	Thr

115	120	125
Cys Ser Met Cys Lys Val Phe Gly Ile His Lys Ala Cys Glu Val Ala 130 135 140		
Pro Leu Gln Ser Val Phe Gln Gly Gln Lys Thr Glu Leu Asn Asn Cys 145 150 155 160		
Ile Ser Met Leu Val Ala Gly Asn Asp Arg Val Gln Thr Ile Ile Thr 165 170 175		
Gln Leu Glu Asp Ser Arg Arg Val Thr Lys Glu Asn Ser His Gln Val 180 185 190		
Lys Glu Glu Leu Ser Gln Lys Phe Asp Thr Leu Tyr Ala Ile Leu Asp 195 200 205		
Glu Lys Lys Ser Glu Leu Leu Gln Arg Ile Thr Gln Glu Gln Glu Glu 210 215 220		
Lys Leu Ser Phe Ile Glu Ala Leu Ile Gln Gln Tyr Gln Glu Gln Leu 225 230 235 240		
Asp Lys Ser Thr Lys Leu Val Glu Thr Ala Ile Gln Ser Leu Asp Glu 245 250 255		
Pro Gly Gly Ala Thr Phe Leu Leu Thr Ala Lys Gln Leu Ile Lys Ser 260 265 270		
Ile Val Glu Ala Ser Lys Gly Cys Gln Leu Gly Lys Thr Glu Gln Gly 275 280 285		
Phe Glu Asn Met Asp Phe Phe Thr Leu Asp Leu Glu His Ile Ala Asp 290 295 300		
Ala Leu Arg Ala Ile Asp Phe Gly Thr Asp Glu Glu Glu Glu Glu Phe 305 310 315 320		
Ile Glu Glu Glu Asp Gln Glu Glu Glu Glu Ser Thr Glu Gly Lys Glu 325 330 335		
Glu Gly His Gln 340		

<210> 24

<211> 1050

<212> DNA

<213> rat

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tgcaacaagg agaatctggt caacagcctg aactacgatg ttgcagccaa gaagagaaag	180
aaagacatac agaacagcaa aacaaaaact cagtatttcc atcaggagaa gtggatctat	240

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 agactggact tctcgactgc catcctggat tccagaagat tcaactacgt agtaaggctg 360
 ttggagctga tagcaaagtc acagctcaca tccctgagtg gcatcgccca aaagaacttc 420
 atgaacattt tggaaaaagt agtactgaaa gttcttgaag accagcaaaa cataagactc 480
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 aagtccgtgc tgggtgggcaa catcaacatg tgggtgtatc gaatggagac cactctacac 600
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 accgacctgc ctgtgtgctt acaactgaac atcatgcaga ggctgagcga tgggcgggac 720
 ctggctcagcc tgggccaggc agccccagac ctgcatgtgc tcagtgaaga ccggctactg 780
 tggagagac tctgccagta ccacttctca gagcggcaga tccgcaagcg attgatcttg 840
 tctgacaaag ggcagctgga ttggaagaag atgtacttta agcttgtgcg atgttaccca 900
 agaagagaac agtatggggg caccctgcag ctttgcaaac actgccacat tctctcctgg 960
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<210> 25

<211> 350

<212> PRT

<213> rat

<400> 25

Met	Pro	Phe	Leu	Gly	Gln	Asp	Trp	Arg	Ser	Pro	Gly	Gln	Ser	Trp	Val
1				5					10					15	
Lys	Thr	Ala	Asp	Gly	Trp	Lys	Arg	Phe	Leu	Asp	Glu	Lys	Ser	Gly	Thr
			20					25					30		
Phe	Val	Ser	Asp	Leu	Ser	Ser	Tyr	Cys	Asn	Lys	Glu	Asn	Leu	Phe	Asn
		35					40					45			
Ser	Leu	Asn	Tyr	Asp	Val	Ala	Ala	Lys	Lys	Arg	Lys	Lys	Asp	Ile	Gln
	50					55					60				
Asn	Ser	Lys	Thr	Lys	Thr	Gln	Tyr	Phe	His	Gln	Glu	Lys	Trp	Ile	Tyr
65					70					75				80	
Val	His	Lys	Gly	Ser	Thr	Lys	Glu	Arg	His	Gly	Tyr	Cys	Thr	Leu	Gly
				85					90					95	
Glu	Ala	Phe	Asn	Arg	Leu	Asp	Phe	Ser	Thr	Ala	Ile	Leu	Asp	Ser	Arg
			100					105					110		
Arg	Phe	Asn	Tyr	Val	Val	Arg	Leu	Leu	Glu	Leu	Ile	Ala	Lys	Ser	Gln

115	120	125
Leu Thr Ser Leu Ser Gly 130	Ile Ala Gln Lys Asn Phe Met Asn Ile Leu 135 140	
Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln Gln Asn Ile Arg Leu 145 150 155 160		
Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser Leu Cys Thr Leu Val 165 170 175		
Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn Ile Asn Met Trp Val 180 185 190		
Tyr Arg Met Glu Thr Thr Leu His Trp Gln Gln Gln Leu Asn Ser Ile 195 200 205		
Gln Ile Ser Arg Pro Ala Phe Lys Gly Leu Thr Ile Thr Asp Leu Pro 210 215 220		
Val Cys Leu Gln Leu Asn Ile Met Gln Arg Leu Ser Asp Gly Arg Asp 225 230 235 240		
Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu His Val Leu Ser Glu 245 250 255		
Asp Arg Leu Leu Trp Lys Arg Leu Cys Gln Tyr His Phe Ser Glu Arg 260 265 270		
Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys Gly Gln Leu Asp Trp 275 280 285		
Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr Pro Arg Arg Glu Gln 290 295 300		
Tyr Gly Val Thr Leu Gln Leu Cys Lys His Cys His Ile Leu Ser Trp 305 310 315 320		
Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn Pro Glu Ser Cys Ser 325 330 335		
Val Ser Leu Ser Pro Gln Asp Phe Ile Asn Leu Phe Lys Phe 340 345 350		

<210> 26

<211> 1035

<212> DNA

<213> Homo sapiens

<400> 26	
atgccattcc tcgggcagga ctggcggtcc cccgggcaga actgggtgaa gacggccgac	60
ggctggaagc gcttcctgga tgagaagagc ggcagtttcg tgagcgacct cagcagttac	120
tgcaacaagg aggtatacaa taaggagaat cttttcaaca gcctgaacta tgatgttgca	180
gccaaagaaga gaaagaagga catgctgaat agcaaaacca aaactcagta tttccaccaa	240

gaaaaaatgga tctatgttca caaaggaagt actaaagagc gccatggata ttgcaccctg 300
 ggggaagctt tcaacagact ggacttctca actgccattc tggattccag aagatttaac 360
 tacgtggtcc ggctgttga gctgatagca aagtcacagc tcacatccct gagtggcatc 420
 gcccaaaaga acttcatgaa tattttggaa aaagtggtagc tgaaagtcct tgaagaccag 480
 caaaacatta gactaataag ggaactactc cagaccctct acacatcctt atgtacactg 540
 gtccaaagag tcggcaagtc tgtgctgggc gggaacatta acatgtgggt gtatcggatg 600
 gagacgattc tccactggca gcagcagctg aacaacattc agatcaccag gcctgccttc 660
 aaaggcctca ccttactga cctgcctttg tgcctacaac tgaacatcat gcagaggctg 720
 agcgacgggc gggacctggg cagcctgggc caggctgccc ccgacctgca cgtgctcagc 780
 gaagaccggc tgctgtggaa gaaactctgc cagtaccact tctccgagcg gcagatccgc 840
 aaacgattaa ttctgtcaga caaagggcag ctggattgga agaagatgta tttcaaactt 900
 gtccgatgtt acccaaggaa agagcagtat ggagataccc ttcagctctg caaacactgt 960
 cacatccttt cctggaaggg cactgaccat ccgtgcactg ccaataaccc agagagctgc 1020
 tccgtttcac tttga 1035

<210> 27

<211> 344

<212> PRT

<213> Homo sapiens

<400> 27

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Asn Trp Val
 1 5 10 15
 Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Ser
 20 25 30
 Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Val Tyr Asn Lys
 35 40 45
 Glu Asn Leu Phe Asn Ser Leu Asn Tyr Asp Val Ala Ala Lys Lys Arg
 50 55 60
 Lys Lys Asp Met Leu Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln
 65 70 75 80
 Glu Lys Trp Ile Tyr Val His Lys Gly Ser Thr Lys Glu Arg His Gly
 85 90 95
 Tyr Cys Thr Leu Gly Glu Ala Phe Asn Arg Leu Asp Phe Ser Thr Ala
 100 105 110
 Ile Leu Asp Ser Arg Arg Phe Asn Tyr Val Val Arg Leu Leu Glu Leu

115	120	125
Ile Ala Lys Ser Gln Leu Thr Ser Leu Ser Gly 130 135	Ile Ala Gln Lys Asn 140	
Phe Met Asn Ile Leu Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln 145 150 155 160		
Gln Asn Ile Arg Leu Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser 165 170 175		
Leu Cys Thr Leu Val Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn 180 185 190		
Ile Asn Met Trp Val Tyr Arg Met Glu Thr Ile Leu His Trp Gln Gln 195 200 205		
Gln Leu Asn Asn Ile Gln Ile Thr Arg Pro Ala Phe Lys Gly Leu Thr 210 215 220		
Phe Thr Asp Leu Pro Leu Cys Leu Gln Leu Asn Ile Met Gln Arg Leu 225 230 235 240		
Ser Asp Gly Arg Asp Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu 245 250 255		
His Val Leu Ser Glu Asp Arg Leu Leu Trp Lys Lys Leu Cys Gln Tyr 260 265 270		
His Phe Ser Glu Arg Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys 275 280 285		
Gly Gln Leu Asp Trp Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr 290 295 300		
Pro Arg Lys Glu Gln Tyr Gly Asp Thr Leu Gln Leu Cys Lys His Cys 305 310 315 320		
His Ile Leu Ser Trp Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn 325 330 335		
Pro Glu Ser Cys Ser Val Ser Leu 340		

<210> 28

<211> 64

<212> PRT

<213> Homo sapiens

<400> 28

Cys Pro Ile Cys Leu Glu Met Phe Ser Lys Pro Val Val Ile Leu Pro 1 5 10 15
Cys Gln His Asn Leu Cys Arg Lys Cys Ala Asn Asp Val Phe Gln Ala 20 25 30
Ser Asn Pro Leu Trp Gln Ser Arg Gly Ser Thr Thr Val Ser Ser Gly

35 40 45
 Gly Arg Phe Arg Cys Pro Ser Cys Arg His Glu Val Val Ile Asp Arg
 50 55 60

<210> 29

<211> 57

<212> PRT

<213> Homo sapiens

<400> 29

Cys Pro Ile Cys Leu Glu Leu Leu Glu Asp Pro Leu Leu Leu Pro Cys
 1 5 10 15

Ala His Ser Leu Cys Phe Ser Cys Ala His Arg Ile Leu Val Ser Ser
 20 25 30

Cys Ser Ser Gly Glu Ser Ile Glu Pro Ile Thr Ala Phe Gln Cys Pro
 35 40 45

Thr Cys Arg Tyr Val Ile Ser Leu Asn
 50 55

<210> 30

<211> 57

<212> PRT

<213> Homo sapiens

<400> 30

Cys Pro Ile Cys Cys Ser Leu Phe Asp Asp Pro Arg Val Leu Pro Cys
 1 5 10 15

Ser His Asn Phe Cys Lys Lys Cys Leu Glu Gly Ile Leu Glu Gly Ser
 20 25 30

Val Arg Asn Ser Leu Trp Arg Pro Ala Pro Phe Lys Cys Pro Thr Cys
 35 40 45

Arg Lys Glu Thr Ser Ala Thr Gly Ile
 50 55

<210> 31

<211> 57

<212> PRT

<213> Homo sapiens

<400> 31

Cys Pro Ile Cys Leu Glu Leu Phe Glu Asp Pro Leu Leu Leu Pro Cys
1 5 10 15
Ala His Ser Leu Cys Phe Ser Cys Ala His Arg Ile Leu Val Ser Ser
20 25 30
Cys Ser Ser Gly Glu Ser Leu Glu Pro Ile Thr Ala Phe Gln Cys Pro
35 40 45
Thr Cys Arg Tyr Val Ile Ser Leu Asn
50 55

<210> 32

<211> 630

<212> DNA

<213> rat

<400> 32
atggactaca aagacgatga cgacaaagat tataaatctg gcttgattcc ggacggaaat 60
gctatggaga acctggagaa gcagctcatc tgcccatct gccttgagat gtttaccaag 120
cctgtggtca tctgcccctg ccagcacaac ctctgccgga agtgtgccaa cgacatcttc 180
caggctgcc atccctactg gaccaaccgc ggtggctcgg tgtccatgtc tggaggctcg 240
ttccgctgcc cctcgtgccg ccatgaagt atcatggacc ggcatggggg gtacggctcg 300
cagaggaacc tgctggtgga gaacatcatc gacatctaca agcaggaatg ctccagtcgg 360
cccctgcaga aaggcagcca ccgatgtgc aaggaacacg aagacgagaa aatcaacatc 420
tactgtctca cgtgcgaggt gcctacttgc tccttgtgca aggtgttcgg ggctcaccag 480
gcctgtgaag ttgccccctt acaaagcatc ttccaaggac agaagactga actgagcaat 540
tgcatctcca tgctggtggc agggaacgac cgagttcaga ctatcatctc gcagctggag 600
gactcctgcc gagtgaccaa ggtgagggtg 630

<210> 33

<211> 202

<212> PRT

<213> rat

<400> 33

Met Asp Tyr Lys Ser Gly Leu Ile Pro Asp Gly Asn Ala Met Glu Asn
1 5 10 15

Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met Phe Thr Lys
 20 25 30
 Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg Lys Cys Ala
 35 40 45
 Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Asn Arg Gly Gly
 50 55 60
 Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Ser Cys Arg His
 65 70 75 80
 Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln Arg Asn Leu
 85 90 95
 Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys Ser Ser Arg
 100 105 110
 Pro Leu Gln Lys Gly Ser His Pro Met Cys Lys Glu His Glu Asp Glu
 115 120 125
 Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr Cys Ser Leu
 130 135 140
 Cys Lys Val Phe Gly Ala His Gln Ala Cys Glu Val Ala Pro Leu Gln
 145 150 155 160
 Ser Ile Phe Gln Gly Gln Lys Thr Glu Leu Ser Asn Cys Ile Ser Met
 165 170 175
 Leu Val Ala Gly Asn Asp Arg Val Gln Thr Ile Ile Ser Gln Leu Glu
 180 185 190
 Asp Ser Cys Arg Val Thr Lys Val Arg Val
 195 200

<210> 34

<211> 1065

<212> DNA

<213> Homo sapiens

<400> 34
 atgccattcc tcgggcagga ctggcggtcc cccgggcaga actgggtgaa gacggccgac 60
 ggctggaagc gcttcctgga tgagaagagc ggcagtttcg tgagcgacct cagcagttac 120
 tgcaacaagg aggtatacaa taaggagaat cttttcaaca gcctgaacta tgatgttgca 180
 gccaagaaga gaaagaagga catgctgaat agcaaaacca aaactcagta tttccaccaa 240
 gaaaaatgga tctatgttca caaaggaagt actaaagagc gccatggata ttgcaccctg 300
 ggggaagctt tcaacagact ggactttctca actgccattc tggattccag aagatttaac 360
 tacgtggtcc ggctgttgga gctgatagca aagtcacagc tcacatccct gactggcatc 420
 gcccaaaaga acttcatgaa tatttttgaa aaagtggtagc tgaaagtcct tgaagaccag 480

caaaacatta gactaataag ggaactactc cagaccctct acacatcctt atgtacactg 540
gtccaaagag tccgcaagtc tgtgctgggc gggaacatta acatgtgggt gtatcggatg 600
gagacgattc tccactggca gcagcagctg aacaacattc agatcaccag gcctgccttc 660
aaaggcctca ccttactga cctgcctttg tgcctacaac tgaacatcat gcagaggctg 720
agcgacgggc gggacctggg cagcctgggc caggctgccc ccgacctgca cgtgctcagc 780
gaagaccggc tgctgtggaa gaaactctgc cagtaccact tctccgagcg gcagatccgc 840
aaacgattaa ttctgtcaga caaagggcag ctggattgga agaagatgta tttcaaactt 900
gtccgatgtt acccaaggaa agagcagtat ggagataccc ttcagctctg caaacactgt 960
cacatccttt cctggaaggg cactgacat cctgacactg ccaataaccc agagagctgc 1020
tccgtttcac tttcacccca ggactttatc aacttggtca agttc 1065

<210> 35

<211> 355

<212> PRT

<213> Homo sapiens

<400> 35

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Asn Trp Val
1 5 10 15
Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Ser
20 25 30
Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Val Tyr Asn Lys
35 40 45
Glu Asn Leu Phe Asn Ser Leu Asn Tyr Asp Val Ala Ala Lys Lys Arg
50 55 60
Lys Lys Asp Met Leu Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln
65 70 75 80
Glu Lys Trp Ile Tyr Val His Lys Gly Ser Thr Lys Glu Arg His Gly
85 90 95
Tyr Cys Thr Leu Gly Glu Ala Phe Asn Arg Leu Asp Phe Ser Thr Ala
100 105 110
Ile Leu Asp Ser Arg Arg Phe Asn Tyr Val Val Arg Leu Leu Glu Leu
115 120 125
Ile Ala Lys Ser Gln Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn
130 135 140
Phe Met Asn Ile Leu Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln
145 150 155 160

Gln Asn Ile Arg Leu Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser
 165 170 175
 Leu Cys Thr Leu Val Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn
 180 185 190
 Ile Asn Met Trp Val Tyr Arg Met Glu Thr Ile Leu His Trp Gln Gln
 195 200 205
 Gln Leu Asn Asn Ile Gln Ile Thr Arg Pro Ala Phe Lys Gly Leu Thr
 210 215 220
 Phe Thr Asp Leu Pro Leu Cys Leu Gln Leu Asn Ile Met Gln Arg Leu
 225 230 235 240
 Ser Asp Gly Arg Asp Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu
 245 250 255
 His Val Leu Ser Glu Asp Arg Leu Leu Trp Lys Lys Leu Cys Gln Tyr
 260 265 270
 His Phe Ser Glu Arg Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys
 275 280 285
 Gly Gln Leu Asp Trp Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr
 290 295 300
 Pro Arg Lys Glu Gln Tyr Gly Asp Thr Leu Gln Leu Cys Lys His Cys
 305 310 315 320
 His Ile Leu Ser Trp Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn
 325 330 335
 Pro Glu Ser Cys Ser Val Ser Leu Ser Pro Gln Asp Phe Ile Asn Leu
 340 345 350
 Phe Lys Phe
 355

<210> 36

<211> 351

<212> PRT

<213> rat

<400> 36

Met Asp Tyr Lys Ser Gly Leu Ile Pro Asp Gly Asn Ala Met Glu Asn
 1 5 10 15
 Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met Phe Thr Lys
 20 25 30
 Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg Lys Cys Ala
 35 40 45
 Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Asn Arg Gly Gly
 50 55 60

Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Ser Cys Arg His
 65 70 75 80
 Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln Arg Asn Leu
 85 90 95
 Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys Ser Ser Arg
 100 105 110
 Pro Leu Gln Lys Gly Ser His Pro Met Cys Lys Glu His Glu Asp Glu
 115 120 125
 Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr Cys Ser Leu
 130 135 140
 Cys Lys Val Phe Gly Ala His Gln Ala Cys Glu Val Ala Pro Leu Gln
 145 150 155 160
 Ser Ile Phe Gln Gly Gln Lys Thr Glu Leu Ser Asn Cys Ile Ser Met
 165 170 175
 Leu Val Ala Gly Asn Asp Arg Val Gln Thr Ile Ile Ser Gln Leu Glu
 180 185 190
 Asp Ser Cys Arg Val Thr Lys Glu Asn Ser His Gln Val Lys Glu Glu
 195 200 205
 Leu Ser His Lys Phe Asp Ala Leu Tyr Ala Ile Leu Asp Glu Lys Lys
 210 215 220
 Ser Glu Leu Leu Gln Arg Ile Thr Gln Glu Gln Glu Lys Leu Asp
 225 230 235 240
 Phe Ile Glu Ala Leu Ile Leu Gln Tyr Arg Glu Gln Leu Glu Lys Ser
 245 250 255
 Thr Lys Leu Val Glu Thr Ala Ile Gln Ser Leu Asp Glu Pro Gly Gly
 260 265 270
 Ala Thr Phe Leu Leu Ser Ala Lys Pro Leu Ile Lys Ser Ile Val Glu
 275 280 285
 Ala Ser Lys Gly Cys Gln Leu Gly Lys Thr Glu Gln Gly Phe Glu Asn
 290 295 300
 Met Asp Tyr Phe Thr Leu Asn Leu Glu His Ile Ala Glu Ala Leu Arg
 305 310 315 320
 Ala Ile Asp Phe Gly Thr Asp Glu Glu Glu Glu Phe Thr Glu Glu Glu
 325 330 335
 Glu Glu Glu Asp Gln Glu Glu Gly Val Ser Thr Glu Gly His Gln
 340 345 350

<210> 37

<211> 396

<212> PRT

<213> Homo sapiens

<400> 37

Met Asn Phe Thr Val Gly Phe Lys Pro Leu Leu Gly Asp Ala His Ser
1 5 10 15
Met Asp Asn Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met
20 25 30
Phe Ser Lys Pro Val Val Leu Leu Pro Cys Gln His Asn Leu Cys Arg
35 40 45
Lys Cys Ala Asn Asp Val Phe Gln Ala Ser Asn Pro Leu Trp Gln Ser
50 55 60
Arg Gly Ser Thr Thr Val Ser Ser Gly Gly Arg Phe Arg Cys Pro Ser
65 70 75 80
Cys Arg His Glu Val Val Leu Asp Arg His Gly Val Tyr Gly Leu Gln
85 90 95
Arg Asn Leu Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Ser
100 105 110
Ser Arg Pro Leu His Ser Lys Ala Glu Gln His Leu Met Cys Glu Glu
115 120 125
His Glu Glu Glu Lys Ile Asn Ile Tyr Cys Leu Ser Cys Glu Val Pro
130 135 140
Thr Cys Ser Leu Cys Lys Val Phe Gly Ala His Lys Asp Cys Glu Val
145 150 155 160
Ala Pro Leu Pro Thr Ile Tyr Lys Arg Gln Lys Lys Gln Asp Leu Thr
165 170 175
Leu Leu Pro Arg Leu Glu Cys Ser Gly Thr Asn Thr Thr Tyr Cys Ser
180 185 190
Leu Asp Leu Pro Ser Ser Ser Asp Pro Pro Ile Leu Ala Ser Gln Asn
195 200 205
Thr Lys Ile Ile Asp Ser Glu Leu Ser Asp Gly Ile Ala Met Leu Val
210 215 220
Ala Gly Asn Asp Arg Val Gln Ala Val Ile Thr Gln Met Glu Glu Val
225 230 235 240
Cys Gln Thr Ile Glu Asp Asn Ser Arg Arg Gln Lys Gln Leu Leu Thr
245 250 255
Gln Arg Phe Glu Ser Leu Cys Ala Val Leu Glu Glu Arg Lys Gly Glu
260 265 270
Leu Leu Gln Ala Leu Ala Arg Glu Gln Glu Glu Lys Leu Gln Arg Val
275 280 285
Arg Gly Leu Ile Arg Gln Tyr Gly Asp His Leu Glu Ala Ser Ser Lys
290 295 300
Leu Val Glu Ser Ala Ile Gln Ser Met Glu Glu Pro Gln Met Ala Leu
305 310 315 320
Tyr Leu Gln Gln Ala Lys Glu Leu Ile Asn Lys Val Gly Ala Met Ser

325

330

335

Lys Val Glu Leu Ala Gly Arg Pro Glu Pro Gly Tyr Glu Ser Met Glu
 340 345 350

Gln Phe Thr Val Arg Val Glu His Val Ala Glu Met Leu Arg Thr Ile
 355 360 365

Asp Phe Gln Pro Gly Ala Ser Gly Glu Glu Glu Val Ala Pro Asp Gly
 370 375 380

Glu Glu Gly Ser Ala Gly Pro Glu Glu Glu Arg Pro
 385 390 395

<210> 38

<211> 867

<212> DNA

<213> Homo sapiens

<400> 38
 atgaacttca cagtgggttt caagccgctg ctaggggatg cacacagcat ggacaacctg 60
 gagaagcagc tcatctgccc catctgcctg gagatgttct ccaaaccagt ggtgatcctg 120
 ccctgccaac acaacctgtg ccgcaaatgt gccaacgacg tcttccaggc ctggaatcct 180
 ctatggcagt cccggggctc caccactgtg tcttcaggag gccgtttccg ctgcccacg 240
 tgcaggcatg aggttgtcct ggacagacac ggtgtctacg gcctgcagcg aaacctgcta 300
 gtggagaaca ttatcgacat ttacaagcag gagtcatcca ggccgctgca ctccaaggct 360
 gagcagcacc tcatgtgca ggagcatgaa gaagagaaga tcaatattta ctgcctgagc 420
 tgtgaggtgc ccacctgctc tctctgcaag gtcttcggtg cccacaagga ctgtgaggtg 480
 gccccactgc ccaccattta caaacgccag aagagtgagc tcagcgatgg catcgcgatg 540
 ctggtggcag gcaatgaccg cgtgcaagca gtgatcacac agatggagga ggtgtgccag 600
 actatcgagg acaatagccg gaggcagaag cagttgttaa accagaggtt tgagagcctg 660
 tgcgcagtgc tggaggagcg caaggggtgag ctgctgcagg cgctggcccg ggagcaagag 720
 gagaagctgc agcgcgtccg cggcctcacc cgtcagtatg gcgaccacct ggaggcctcc 780
 tctaagctgg tggagtctgc catccagtcc atggaagagc cacaaatggc gctgtatctc 840
 cagcaggcca aggagctgat caataag 867

<210> 39

<211> 289

<212> PRT

<213> Homo sapiens

<400> 39

Met Asn Phe Thr Val Gly Phe Lys Pro Leu Leu Gly Asp Ala His Ser
1 5 10 15
Met Asp Asn Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met
20 25 30
Phe Ser Lys Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg
35 40 45
Lys Cys Ala Asn Asp Val Phe Gln Ala Ser Asn Pro Leu Trp Gln Ser
50 55 60
Arg Gly Ser Thr Thr Val Ser Ser Gly Gly Arg Phe Arg Cys Pro Ser
65 70 75 80
Cys Arg His Glu Val Val Leu Asp Arg His Gly Val Tyr Gly Leu Gln
85 90 95
Arg Asn Leu Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Ser
100 105 110
Ser Arg Pro Leu His Ser Lys Ala Glu Gln His Leu Met Cys Glu Glu
115 120 125
His Glu Glu Glu Lys Ile Asn Ile Tyr Cys Leu Ser Cys Glu Val Pro
130 135 140
Thr Cys Ser Leu Cys Lys Val Phe Gly Ala His Lys Asp Cys Glu Val
145 150 155 160
Ala Pro Leu Pro Thr Ile Tyr Lys Arg Gln Lys Ser Glu Leu Ser Asp
165 170 175
Gly Ile Ala Met Leu Val Ala Gly Asn Asp Arg Val Gln Ala Val Ile
180 185 190
Thr Gln Met Glu Glu Val Cys Gln Thr Ile Glu Asp Asn Ser Arg Arg
195 200 205
Gln Lys Gln Leu Leu Asn Gln Arg Phe Glu Ser Leu Cys Ala Val Leu
210 215 220
Glu Glu Arg Lys Gly Glu Leu Leu Gln Ala Leu Ala Arg Glu Gln Glu
225 230 235 240
Glu Lys Leu Gln Arg Val Arg Gly Leu Ile Arg Gln Tyr Gly Asp His
245 250 255
Leu Glu Ala Ser Ser Lys Leu Val Glu Ser Ala Ile Gln Ser Met Glu
260 265 270
Glu Pro Gln Met Ala Leu Tyr Leu Gln Gln Ala Lys Glu Leu Ile Asn
275 280 285
Lys

<210> 40

<211> 350

<212> PRT

<213> rat

<400> 40

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Ser Trp Val
1 5 10 15
Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Thr
20 25 30
Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Asn Leu Phe Asn
35 40 45
Ser Leu Asn Tyr Asp Tyr Ala Ala Lys Lys Arg Lys Lys Asp Ile Gln
50 55 60
Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln Glu Lys Trp Ile Tyr
65 70 75 80
Val Lys Lys Gly Ser Thr Lys Glu Arg His Gly Tyr Cys Thr Leu Gly
85 90 95
Glu Ala Phe Asn Arg Leu Asp Phe Ser Thr Ala Ile Leu Asp Ser Arg
100 105 110
Arg Thr Asn Tyr Val Val Arg Leu Leu Glu Leu Ile Ala Lys Ser Gln
115 120 125
Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn Phe Met Asn Ile Leu
130 135 140
Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln Gln Asn Ile Arg Leu
145 150 155 160
Thr Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser Leu Cys Thr Leu Val
165 170 175
Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn Thr Asn Met Trp Val
180 185 190
Tyr Arg Met Glu Thr Thr Leu His Trp Gln Gln Gln Leu Asn Ser Ile
195 200 205
Gln Ile Ser Arg Pro Ala Phe Lys Gly Leu Thr Ile Thr Asp Leu Pro
210 215 220
Val Cys Leu Gln Leu Asn Ile Met Gln Arg Leu Ser Asp Gly Arg Asp
225 230 235 240
Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu His Val Leu Ser Glu
245 250 255
Asp Arg Leu Leu Trp Lys Arg Leu Cys Gln Tyr His Phe Ser Glu Arg
260 265 270
Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys Gly Gln Leu Asp Trp
275 280 285

Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr Pro Arg Arg Glu Gln
 290 295 300

Tyr Gly Val Thr Leu Gln Leu Cys Lys His Cys His Ile Leu Ser Trp
 305 310 315 320

Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn Pro Glu Ser Cys Ser
 325 330 335

Val Ser Leu Ser Pro Gln Asp Phe Ile Asn Leu Phe Lys Phe
 340 345 350

<210> 41

<211> 355

<212> PRT

<213> Homo sapiens

<400> 41

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Asn Trp Val
 1 5 10 15

Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Ser
 20 25 30

Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Val Tyr Asn Lys
 35 40 45

Glu Asn Leu Phe Asn Ser Leu Asn Tyr Asp Tyr Ala Ala Lys Lys Arg
 50 55 60

Lys Lys Asp Met Leu Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln
 65 70 75 80

Glu Lys Trp Ile Tyr Val His Lys Gly Ser Thr Lys Glu Arg His Gly
 85 90 95

Tyr Cys Thr Leu Gly Glu Ala Phe Asn Arg Leu Asp Phe Ser Thr Ala
 100 105 110

Ile Leu Asp Ser Arg Arg Thr Asn Tyr Val Val Arg Leu Leu Glu Leu
 115 120 125

Ile Ala Lys Ser Gln Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn
 130 135 140

Phe Met Asn Ile Leu Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln
 145 150 155 160

Gln Asn Ile Arg Leu Thr Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser
 165 170 175

Leu Cys Thr Leu Val Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn
 180 185 190

Thr Asn Met Trp Val Tyr Arg Met Glu Thr Thr Leu His Trp Gln Gln
 195 200 205

Gln Leu Asn Asn Ile Gln Ile Thr Arg Pro Ala Phe Lys Gly Leu Thr
210 215 220

Phe Thr Asp Leu Pro Leu Cys Leu Gln Leu Asn Ile Met Gln Arg Leu
225 230 235 240

Ser Asp Gly Arg Asp Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu
245 250 255

His Val Leu Ser Glu Asp Arg Leu Leu Trp Lys Lys Leu Cys Gln Tyr
260 265 270

His Phe Ser Glu Arg Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys
275 280 285

Gly Gln Leu Asp Trp Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr
290 295 300

Pro Arg Lys Glu Gln Tyr Gly Asp Thr Leu Gln Leu Cys Lys His Cys
305 310 315 320

His Ile Leu Ser Trp Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn
325 330 335

Pro Glu Ser Cys Ser Val Ser Leu Ser Pro Gln Asp Phe Ile Asn Leu
340 345 350

Phe Lys Phe
355

<210> 42

<211> 271

<212> PRT

<213> Homo sapiens

<400> 42

Leu Ile Leu Thr Ser Val Leu Leu Phe Gln Arg His Gly Tyr Cys Thr
1 5 10 15

Leu Gly Glu Ala Phe Asn Arg Leu Asp Phe Ser Ser Ala Ile Gln Asp
20 25 30

Ile Arg Thr Glu Asn Tyr Val Val Lys Leu Leu Gln Leu Ile Ala Lys
35 40 45

Ser Gln Leu Thr Ser Leu Ser Gly Val Ala Gln Lys Asn Tyr Phe Asn
50 55 60

Ile Leu Asp Lys Ile Val Gln Lys Val Leu Asp Asp His His Asn Pro
65 70 75 80

Arg Leu Thr Lys Asp Leu Leu Gln Asp Leu Ser Ser Thr Leu Cys Ile
85 90 95

Leu Ile Arg Gly Val Gly Lys Ser Val Leu Val Gly Asn Ile Asn Ile
100 105 110

Trp Ile Cys Arg Leu Glu Thr Ile Leu Ala Trp Gln Gln Gln Leu Gln
115 120 125

Asp Leu Gln Met Thr Lys Gln Val Asn Asn Gly Leu Thr Leu Ser Asp
130 135 140

Leu Pro Leu His Met Leu Asn Ile Leu Tyr Arg Phe Ser Asp Gly Trp
145 150 155 160

Asp Ile Ile Thr Leu Gly Gln Val Thr Pro Thr Leu Tyr Met Leu Ser
165 170 175

Glu Asp Arg Gln Leu Trp Lys Arg Leu Cys Gln Tyr His Phe Ala Glu
180 185 190

Lys Gln Phe Cys Arg His Leu Ile Leu Ser Glu Lys Gly His Ile Glu
195 200 205

Trp Lys Leu Met Tyr Phe Ala Leu Gln Lys His Tyr Pro Ala Lys Glu
210 215 220

Gln Tyr Gly Asp Thr Leu His Phe Cys Arg His Cys Ser Thr Leu Phe
225 230 235 240

Trp Lys Asp Ser Gly His Pro Cys Thr Ala Ala Asp Pro Asp Ser Cys
245 250 255

Phe Thr Pro Val Ser Pro Gln His Phe Ile Asp Leu Phe Lys Phe
260 265 270

<210> 43

<211> 350

<212> PRT

<213> rat

<400> 43

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Ser Trp Val
1 5 10 15

Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Thr
20 25 30

Phe Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Asn Leu Phe Asn
35 40 45

Ser Leu Asn Tyr Asp Val Ala Ala Lys Lys Arg Lys Lys Asp Ile Gln
50 55 60

Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln Glu Lys Trp Ile Tyr
65 70 75 80

Val His Lys Gly Ser Thr Lys Glu Arg His Gly Tyr Cys Thr Leu Gly
85 90 95

Glu Ala Phe Asn Arg Leu Asp Phe Ser Thr Ala Ile Leu Asp Ser Arg
100 105 110

Arg Phe Asn Tyr Val Val Arg Leu Leu Glu Leu Ile Ala Lys Ser Gln
 115 120 125
 Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn Phe Met Asn Ile Leu
 130 135 140
 Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln Gln Asn Ile Arg Leu
 145 150 155 160
 Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser Leu Cys Thr Leu Val
 165 170 175
 Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn Ile Asn Met Trp Val
 180 185 190
 Tyr Arg Met Glu Thr Thr Leu His Trp Gln Gln Gln Leu Asn Ser Ile
 195 200 205
 Gln Ile Ser Arg Pro Ala Phe Lys Gly Leu Thr Ile Thr Asp Leu Pro
 210 215 220
 Val Cys Leu Gln Leu Asn Ile Met Gln Arg Leu Ser Asp Gly Arg Asp
 225 230 235 240
 Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu His Val Leu Ser Glu
 245 250 255
 Asp Arg Leu Leu Trp Lys Arg Leu Cys Gln Tyr His Phe Ser Glu Arg
 260 265 270
 Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys Gly Gln Leu Asp Trp
 275 280 285
 Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr Pro Arg Arg Glu Gln
 290 295 300
 Tyr Gly Val Thr Leu Gln Leu Cys Lys His Cys His Ile Leu Ser Trp
 305 310 315 320
 Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn Pro Glu Ser Cys Ser
 325 330 335
 Val Ser Leu Ser Pro Gln Asp Phe Ile Asn Leu Phe Lys Phe
 340 345 350

<210> 44

<211> 350

<212> PRT

<213> rat

<400> 44

Met Pro Phe Leu Gly Gln Asp Trp Arg Ser Pro Gly Gln Ser Trp Val
 1 5 10 15
 Lys Thr Ala Asp Gly Trp Lys Arg Phe Leu Asp Glu Lys Ser Gly Leu
 20 25 30

Leu Val Ser Asp Leu Ser Ser Tyr Cys Asn Lys Glu Asn Leu Phe Asn
 35 40 45
 Ser Leu Asn Tyr Asp Val Ala Ala Lys Lys Arg Lys Lys Asp Ile Gln
 50 55 60
 Asn Ser Lys Thr Lys Thr Gln Tyr Phe His Gln Glu Lys Trp Ile Tyr
 65 70 75 80
 Val His Lys Gly Ser Thr Lys Glu Arg His Gly Tyr Cys Thr Leu Gly
 85 90 95
 Glu Ala Leu Asn Arg Leu Asp Phe Ser Thr Ala Ile Leu Asp Ser Arg
 100 105 110
 Arg Phe Asn Tyr Val Val Arg Leu Leu Glu Leu Ile Ala Lys Ser Gln
 115 120 125
 Leu Thr Ser Leu Ser Gly Ile Ala Gln Lys Asn Phe Met Asn Ile Leu
 130 135 140
 Glu Lys Val Val Leu Lys Val Leu Glu Asp Gln Gln Asn Ile Arg Leu
 145 150 155 160
 Ile Arg Glu Leu Leu Gln Thr Leu Tyr Thr Ser Leu Cys Thr Leu Val
 165 170 175
 Gln Arg Val Gly Lys Ser Val Leu Val Gly Asn Ile Asn Met Trp Val
 180 185 190
 Tyr Arg Met Glu Thr Thr Leu His Trp Gln Gln Gln Leu Asn Ser Ile
 195 200 205
 Gln Ile Ser Arg Pro Ala Phe Lys Gly Leu Thr Ile Thr Asp Leu Pro
 210 215 220
 Val Cys Leu Gln Leu Asn Ile Met Gln Arg Leu Ser Asp Gly Arg Asp
 225 230 235 240
 Leu Val Ser Leu Gly Gln Ala Ala Pro Asp Leu His Val Leu Ser Glu
 245 250 255
 Asp Arg Leu Leu Trp Lys Arg Leu Cys Gln Tyr His Phe Ser Glu Arg
 260 265 270
 Gln Ile Arg Lys Arg Leu Ile Leu Ser Asp Lys Gly Gln Leu Asp Trp
 275 280 285
 Lys Lys Met Tyr Phe Lys Leu Val Arg Cys Tyr Pro Arg Arg Glu Gln
 290 295 300
 Tyr Gly Val Thr Leu Gln Leu Cys Lys His Cys His Ile Leu Ser Trp
 305 310 315 320
 Lys Gly Thr Asp His Pro Cys Thr Ala Asn Asn Pro Glu Ser Cys Ser
 325 330 335
 Val Ser Leu Ser Pro Gln Asp Phe Ile Asn Leu Phe Lys Phe
 340 345 350

<210> 45

<211> 351

<212> PRT

<213> rat

<400> 45

Met Asp Tyr Lys Ser Gly Leu Ile Pro Asp Gly Asn Ala Met Glu Asn
1 5 10 15
Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met Phe Thr Lys
20 25 30
Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg Lys Cys Ala
35 40 45
Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Asn Arg Gly Gly
50 55 60
Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Ser Cys Arg His
65 70 75 80
Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln Arg Asn Leu
85 90 95
Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys Ser Ser Arg
100 105 110
Pro Leu Gln Lys Gly Ser His Pro Met Cys Lys Glu His Glu Asp Glu
115 120 125
Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr Cys Ser Leu
130 135 140
Cys Lys Val Phe Gly Ala His Gln Ala Cys Glu Val Ala Pro Leu Gln
145 150 155 160
Ser Ile Phe Gln Gly Gln Lys Thr Glu Leu Ser Asn Cys Ile Ser Met
165 170 175
Leu Val Ala Gly Asn Asp Arg Val Gln Thr Ile Ile Ser Gln Leu Glu
180 185 190
Asp Ser Cys Arg Val Thr Lys Glu Asn Ser His Gln Val Lys Glu Glu
195 200 205
Leu Ser His Lys Phe Asp Ala Leu Tyr Ala Ile Leu Asp Glu Lys Lys
210 215 220
Ser Glu Leu Leu Gln Arg Ile Thr Gln Glu Gln Glu Lys Leu Asp
225 230 235 240
Phe Ile Glu Ala Leu Ile Leu Gln Tyr Arg Glu Gln Leu Glu Lys Ser
245 250 255
Thr Lys Leu Val Glu Thr Ala Ile Gln Ser Leu Asp Glu Pro Gly Gly
260 265 270
Ala Thr Phe Leu Leu Ser Ala Lys Pro Leu Ile Lys Ser Ile Val Glu
275 280 285
Ala Ser Lys Gly Cys Gln Leu Gly Lys Thr Glu Gln Gly Phe Glu Asn

290	295	300
Met Asp Tyr Phe Thr Leu Asn Leu Glu His Ile Ala Glu Ala Leu Arg 305 310 315 320		
Ala Ile Asp Phe Gly Thr Asp Glu Glu Glu Glu Phe Thr Glu Glu Glu 325 330 335		
Glu Glu Glu Asp Gln Glu Glu Gly Val Ser Thr Glu Gly His Gln 340 345 350		
<210> 46		
<211> 351		
<212> PRT		
<213> rat		
<400> 46		
Met Asp Tyr Lys Ser Gly Leu Ile Pro Asp Gly Asn Ala Met Glu Asn 1 5 10 15		
Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met Phe Thr Lys 20 25 30		
Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg Lys Cys Ala 35 40 45		
Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Asn Arg Gly Gly 50 55 60		
Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Ser Cys Arg His 65 70 75 80		
Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln Arg Asn Leu 85 90 95		
Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys Ser Ser Arg 100 105 110		
Pro Leu Gln Lys Gly Ser His Pro Met Cys Lys Glu His Glu Asp Glu 115 120 125		
Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr Cys Ser Leu 130 135 140		
Cys Lys Val Phe Gly Ala His Gln Ala Cys Glu Val Ala Pro Leu Gln 145 150 155 160		
Ser Ile Phe Gln Gly Gln Lys Thr Glu Leu Ser Asn Cys Ile Ser Met 165 170 175		
Leu Val Ala Gly Asn Asp Arg Val Gln Thr Ile Ile Ser Gln Leu Glu 180 185 190		
Asp Ser Cys Arg Val Thr Lys Glu Asn Ser His Gln Val Lys Glu Glu 195 200 205		
Leu Ser His Lys Phe Asp Ala Leu Tyr Ala Ile Leu Asp Glu Lys Lys		

210	215	220
Ser Glu Leu Leu Gln Arg Ile Thr Gln Glu Gln Glu Lys Leu Asp 225 230 235 240		
Phe Ile Glu Ala Leu Ile Leu Gln Tyr Arg Glu Gln Leu Glu Lys Ser 245 250 255		
Thr Lys Leu Val Glu Thr Ala Ile Gln Ser Leu Asp Glu Pro Gly Gly 260 265 270		
Ala Thr Phe Leu Leu Ser Ala Lys Pro Leu Ile Lys Ser Ile Val Glu 275 280 285		
Ala Ser Lys Gly Cys Gln Leu Gly Lys Thr Glu Gln Gly Phe Glu Asn 290 295 300		
Met Asp Tyr Phe Thr Leu Asn Leu Glu His Ile Ala Glu Ala Leu Arg 305 310 315 320		
Ala Ile Asp Phe Gly Thr Asp Glu Glu Glu Glu Phe Thr Glu Glu Glu 325 330 335		
Glu Glu Glu Asp Gln Glu Glu Gly Val Ser Thr Glu Gly His Gln 340 345 350		

<210> 47

<211> 351

<212> PRT

<213> rat

<400> 47

Met Asp Tyr Lys Ser Gly Leu Ile Pro Asp Gly Asn Ala Met Glu Asn 1 5 10 15
Leu Glu Lys Gln Leu Ile Cys Pro Ile Cys Leu Glu Met Phe Thr Lys 20 25 30
Pro Val Val Ile Leu Pro Cys Gln His Asn Leu Cys Arg Lys Cys Ala 35 40 45
Asn Asp Ile Phe Gln Ala Ala Asn Pro Tyr Trp Thr Asn Arg Gly Gly 50 55 60
Ser Val Ser Met Ser Gly Gly Arg Phe Arg Cys Pro Ser Cys Arg His 65 70 75 80
Glu Val Ile Met Asp Arg His Gly Val Tyr Gly Leu Gln Arg Asn Leu 85 90 95
Leu Val Glu Asn Ile Ile Asp Ile Tyr Lys Gln Glu Cys Ser Ser Arg 100 105 110
Pro Leu Gln Lys Gly Ser His Pro Met Cys Lys Glu His Glu Asp Glu 115 120 125
Lys Ile Asn Ile Tyr Cys Leu Thr Cys Glu Val Pro Thr Cys Ser Leu

130					135					140					
Cys	Lys	Val	Phe	Gly	Ala	His	Gln	Ala	Cys	Glu	Val	Ala	Pro	Leu	Gln
145					150					155					160
Ser	Ile	Phe	Gln	Gly	Gln	Lys	Thr	Glu	Leu	Ser	Asn	Cys	Ile	Ser	Met
			165						170					175	
Leu	Val	Ala	Gly	Asn	Asp	Arg	Val	Gln	Thr	Ile	Ile	Ser	Gln	Leu	Glu
			180					185					190		
Asp	Ser	Cys	Arg	Val	Thr	Lys	Glu	Asn	Ser	His	Gln	Val	Lys	Glu	Glu
		195					200					205			
Leu	Ser	His	Lys	Phe	Asp	Ala	Leu	Tyr	Ala	Ile	Leu	Asp	Glu	Lys	Lys
	210					215					220				
Ser	Glu	Leu	Leu	Gln	Arg	Ile	Thr	Gln	Glu	Gln	Glu	Glu	Lys	Leu	Asp
225					230					235					240
Phe	Ile	Glu	Ala	Leu	Ile	Leu	Gln	Tyr	Arg	Glu	Gln	Leu	Glu	Lys	Ser
				245					250					255	
Thr	Lys	Leu	Val	Glu	Thr	Ala	Ile	Gln	Ser	Leu	Asp	Glu	Pro	Gly	Gly
			260					265					270		
Ala	Thr	Phe	Leu	Leu	Ser	Ala	Lys	Pro	Leu	Ile	Lys	Ser	Ile	Val	Glu
		275					280					285			
Ala	Ser	Lys	Gly	Cys	Gln	Leu	Gly	Lys	Thr	Glu	Gln	Gly	Phe	Glu	Asn
	290					295					300				
Met	Asp	Tyr	Phe	Thr	Leu	Asn	Leu	Glu	His	Ile	Ala	Glu	Ala	Leu	Arg
305					310					315					320
Ala	Ile	Asp	Phe	Gly	Thr	Asp	Glu	Glu	Glu	Glu	Phe	Thr	Glu	Glu	Glu
				325				330						335	
Glu	Glu	Glu	Asp	Gln	Glu	Glu	Gly	Val	Ser	Thr	Glu	Gly	His	Gln	
			340					345					350		

<210> 48

<211> 353

<212> PRT

<213> Homo sapiens

<400> 48

Met	Asp	Tyr	Lys	Ser	Ser	Leu	Ile	Gln	Asp	Gly	Asn	Pro	Met	Glu	Asn
1				5					10					15	
Leu	Glu	Lys	Gln	Leu	Ile	Cys	Pro	Ile	Cys	Leu	Glu	Met	Phe	Thr	Lys
			20					25					30		
Pro	Val	Val	Ile	Leu	Pro	Cys	Gln	His	Asn	Leu	Cys	Arg	Lys	Cys	Ala
		35					40					45			
Asn	Asp	Ile	Phe	Gln	Ala	Ala	Asn	Pro	Tyr	Trp	Thr	Ser	Arg	Gly	Ser

50					55					60					
Ser	Val	Ser	Met	Ser	Gly	Gly	Arg	Phe	Arg	Cys	Pro	Thr	Cys	Arg	His
65					70					75					80
Glu	Val	Ile	Met	Asp	Arg	His	Gly	Val	Tyr	Gly	Leu	Gln	Arg	Asn	Leu
				85					90					95	
Leu	Val	Glu	Asn	Ile	Ile	Asp	Ile	Tyr	Lys	Gln	Glu	Cys	Ser	Ser	Arg
			100					105					110		
Pro	Leu	Gln	Lys	Gly	Ser	His	Pro	Met	Cys	Lys	Glu	His	Glu	Asp	Glu
		115					120					125			
Lys	Ile	Asn	Ile	Tyr	Cys	Leu	Thr	Cys	Glu	Val	Pro	Thr	Cys	Ser	Met
	130					135					140				
Cys	Lys	Val	Phe	Gly	Ile	His	Lys	Ala	Cys	Glu	Val	Ala	Pro	Leu	Gln
145					150					155					160
Ser	Val	Phe	Gln	Gly	Gln	Lys	Thr	Glu	Leu	Asn	Asn	Cys	Ile	Ser	Met
				165					170					175	
Leu	Val	Ala	Gly	Asn	Asp	Arg	Val	Gln	Thr	Ile	Tyr	Thr	Gln	Leu	Glu
			180					185					190		
Asp	Ser	Arg	Arg	Val	Thr	Lys	Glu	Asn	Ser	His	Gln	Val	Lys	Glu	Glu
		195					200					205			
Leu	Ser	Gln	Lys	Phe	Asp	Thr	Leu	Tyr	Ala	Ile	Leu	Asp	Glu	Lys	Lys
	210					215					220				
Ser	Glu	Leu	Leu	Gln	Arg	Ile	Thr	Gln	Glu	Gln	Glu	Glu	Lys	Leu	Ser
225					230					235					240
Phe	Ile	Glu	Ala	Leu	Ile	Gln	Gln	Tyr	Gln	Glu	Gln	Leu	Asp	Lys	Ser
				245					250					255	
Thr	Lys	Leu	Val	Glu	Thr	Ala	Ile	Gln	Ser	Leu	Asp	Glu	Pro	Gly	Gly
			260					265					270		
Ala	Thr	Phe	Leu	Leu	Thr	Ala	Lys	Gln	Leu	Ile	Lys	Ser	Ile	Val	Glu
			275				280					285			
Ala	Ser	Lys	Gly	Cys	Gln	Leu	Gly	Lys	Thr	Glu	Gln	Gly	Phe	Glu	Asn
	290					295					300				
Met	Asp	Phe	Phe	Thr	Leu	Asp	Leu	Glu	His	Ile	Ala	Asp	Ala	Leu	Arg
305					310					315					320
Ala	Ile	Asp	Phe	Gly	Thr	Asp	Glu	Glu	Glu	Glu	Glu	Phe	Ile	Glu	Glu
				325					330					335	
Glu	Asp	Gln	Glu	Glu	Glu	Glu	Ser	Thr	Glu	Gly	Lys	Glu	Glu	Gly	His
			340					345					350		
Gln															